(19) JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **07174649 A**

(43) Date of publication of application: **14.07.95**

(51) Int. Cl **G01L 5/00**
G01L 1/00

(21) Application number: **05288720**

(22) Date of filing: **25.10.93**

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(54) MAGNETIC FACE-PRESSURE INPUT PANEL

(57) Abstract:

PURPOSE: To detect the fine face-distributed pressure of a fingerprint or the like precisely in a noncontact manner by laminating a flexible magnetic sheet and a circuit board in which magnetoresistance elements are formed at points of intersection of scanning electrode wires arranged in a matrix shape on an insulating board.

CONSTITUTION: A magnetic sheet 2 both faces of which have been magnetized respectively to S-poles and N-poles, an insulating sheet 3 which is composed of an insulating film and a circuit board 4 in which a plurality of X-direction and Y-direction scanning electrode wires 20, 30 are arranged in a matrix shape at intervals of about 50 to 60$_{\mu}$m on a board 10 and on which magnetoresistance elements 40 have been formed are laminated Thereby, a face-pressure input panel 1 is constituted. Both terminals of the elements 40 are connected respectively to the electrode wires 20, 30, and many fine unit detection elements 40 are formed on the circuit board 4. When a finger is put on the panel 1 and the panel is pressed slightly, the sheets 2, 3 are pressed down as a whole. However, since a pressure force in mountain parts of a fingerprint is different from that in its valley parts, the resistance value of the element 40 situated in the mountain part becomes larger than the resistance value of the element 40 in the valley part, a resistance value corresponding to the pattern of a fingerprint is output, and the fingerprint can be detected precisely.

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